# TMS320F2812 DSK board

1.1 product introduction
Easy2812 development board is a set of learning and based on TMS320F2812 digital signal processor (DSP) secondary development platform. TMS320F2812 learning development board, DSP development board
1 and provides more than 20 experimental projects, providing complete diagram, code and the periphery of the commonly used interface, can completely as individuals, companies, universities and research institutes in the teaching and learning tool for beginners.
2 and at the same time, the derivation of all control signals and digital signal processor (DSP) 50 CPLD IO signal, can be used as a secondary development development platform.
3 and fully consider the EMC, EMI and cooling, installation factors, the largest raises all interface.
Very low price, and is especially suitable for students' learning.

Reflow soldering machine, automatic production process

The difference between QQ2812 with Easy2812
We are Easy2812 development board in QQ2812 development based on board to simplify, specifically to adapt to the needs of their students.
1 Easy2812, remove the USB DEVICE part,
2 Easy2812, remove audio input/output part,
3 Easy2812, remove DA output part,
4 Easy2812, remove the rs-five 485 switch to the second part, the rs-five 232,
5 and Easy2812 removed the power switch,
6 and Easy2812 for two layer board, QQ2812 for four layer board;
7 and Easy2812 increase led to 18 CPLD IO interface,
130 system resources
Robert DSP TMS320F2812, 32-bit fixed-point high-speed digital processor, the highest frequency 150M,
In 128K built-in, slice, using 16-bit * FLASH plugin burning can be conveniently curing the user program, FLASH encryption,

Robert piece inside built-in 18K * 16 an SRAM,
Within the piece DE * * * * 16 on 4K built-in ROM,
Robert piece inside built-in 1K * 16 OTP ROM,
16 256K *, expand an SRAM, IS61LV25616,
512K *, expand SST39VF800, 16 FLASH, user-friendly burning larger program,
Robert EPM3256ATC144 use CPLD, 5,000 door, download interface, user can write their code,
Provide a 8 period, digital pipe,
Provides eight LED, pipe, convenient condition instructions,
Nine, provide independent key,
Provide a buzzer;,
Special reduction, MAX706R chips, to ensure reliable reset, independent reset button, can be manually reset,
Provide 2 road, the rs-five 232 and contians a PC experiment,
1 CAN2.0 road, provide convenient user interface, networking,
Provide input and AD, interfaces, 3, 4 Luke limited flow and the op-amp processing, input range 0 ~ 3V (don't go! ,
12864 Chinese LCD, provide interfaces,
Provide 1602 characters, liquid interface,
Provide EEPROM, 1, 24LC64 chips for, with experimental data transmission IIC bus,
Robert provide dc motor control interface design, insert counter-attack,
Provide stepper motor control, design, interface insert counter-attack,
Provide SPI interface, easy derivation, networking,
Provide MCBSP interface, drawn,
No.6 provides PWM waves, output port, counter-attack inserted design,
The expansion of 2, where interrupts source input interface,
As many as five road, the expansion of shielding interrupt source, including 1 road input interface can be triggered by buttons,
Robert provide up to 50 road CPLD IO interface,
Open, cable, bus line, line, address, special function lead all the derivation, user-friendly second development,
Robert provides + 5V, 3.3 V, 3.3 VA, 1.8 V, GNDF GND, such power test points,
Directly by external power supply voltage, power, more stable and reliable power supply function; no, USB,
Provide four fixing hole, and convenient installation.
Physical size, 1.35 * 11 cm,
Robert USES 2 layer board design, process and ensure welding machine bonding process stable, reliable performance, high,
Extended derivation, HOST USB interface (also buy USB extension board); the.net -
Extended derivation, buy USB network interface (another), expand the.net -

1.4 interconnect
Robert DSP bus, AD, EVA, EVB etc all functional pin derivation, 4 30 pin sockets, tube feet, users can enlarge 2mm spacing
Fair use,
Robert CPLD 50 road IO interface derivation, 3 20pin socket, tube foot 2mm spacing,

Robert SPI interface derivation, tube foot spacing 2.54 mm,
MCBSP interface, derivation, tube foot spacing 2.54 mm,
With 1149.1 IEEE standard, the JTAG DSP IDC14 interface, feet, tube, can cooperate with 254 mm spacing of all marking on the market
Must JTAG interface simulators use,
No.6, PWM interface derivation, tube foot 2mm spacing,
Robert dc motor interface derivation, tube foot spacing 2.54 mm,
Robert step-motor interface derivation, tube foot spacing 2.54 mm,
12864 Chinese graphic interface, liquid 20p derivation, and pipe hole spacing 2.54 mm feet,
Robert 1602 characters 16p derivation, liquid interfaces, pipe hole spacing 2.54 mm feet,
2 and 4 NMI road, road EINT input interface derivation, tube foot spacing 2.54 mm,
The standard JTAG interface, CPLD, IDC10 socket, tube foot spacing 2.54 mm, downloadable oneself write code; the CPLD
CAN2.0 bus interface, socket, two blue terminals, 5.08 mm spacing,
1 road, DB9 rs-five 232 standard type 1 road socket, interface rs-five SIP3 socket derivation, 232 interface,
External power input, DC 5V,
Extended derivation, HOST USB interface (also buy USB extension board); the.net -
Extended derivation, buy USB network interface (another), expand the.net -

Code and test programs. 1.5

1) DSP
Experiments 1 internal timer 0 scrolling experiment,
Experiment 2 internal timer experiment; 2 lights,
Experimental 3 event manager experiment,
Experiment and digital tube display experiment,
Experiment and buzzer control experiment,
Experiment and external RAM and experiment,
Experiment and external FLASH and experiment,
Experimental and control experimental GPIO,
Experimental 9 external interruption control experiment,
Experimental 11.he RS - 232 interface communication experiment,
The experiment CAN bus interface experiment,
Experimental 15 dc motor control experiment,
Experimental 16, stepping motor control experiment,
Experimental 17.12864 graphical LCD experiment,
Experimental 18.1602 character liquid crystal display (LCD) experiments,
Experimental data EEPROM IIC 21. And experiment,
Experiment and CPLD burning experiment,
Laboratory tests for AD input,
Experiments 24. Keypad scanning experiments,
Experiment and CAN bus and external devices to send experiment,
Experiment with 26 thecan bus equipment receiving experiment,

The USB - asp.net expanded plate supporting experiment:
Experimental 30 FAT16 U dish and reading experiment,
The experiment and test and usb FAT32,
32 experiments and move hard disk and experiment FAT32,
Laboratory tests; RTL8019 33.
Laboratory tests, UDP 34.
Laboratory tests; 35 ICMP
Laboratory tests (36 TCPIP QQ2812 as the server),
Laboratory tests (37 TCPIP QQ2812 as client),

All above experiment project provides C language version of the source code, and have the detailed Chinese annotation.

2) CPLD code
Complete and logical agglutinate address assignment.

160 related material
1 complete diagram (PDF format, guarantee and PCB perfectly), grasp the application of several practical interface,
2 all provide C source code, experiments were detailed Chinese annotation,
3 online burning FLASH method and tools, for curing the users themselves,
4 chip manual: provide development board all chip chip material,
5. Send the original TI DSP CCS2.2 development environment for C2000,
6 provide simulators drive and other related study data CD DSP books,
7. Giving Acrobat reader, Keil C, Bushound USB Sscom, monitor software testing debugging tool serial assistant, etc.
8. Altera download line diagram gifts,
9 make word-model software; giving LCD
The presented the TCP/IP protocol, volume 1 ~ 3,
11. Giving USB standard document,
12 CAN2.0 standard documents presented,
13. Giving U plate system documentation,
14 FAT16 gifts, FAT32 system documentation,
15 UCOS presented in the F2812 - II transplant source,
16. Giving FFT, FIR, etc FaKu calculate,
But giving full series of chip packages TI,
The user manual: very detailed analysis, code, include circuit is introduced, CCS2000 forthright guidance; etc.
Above is only for learning by giving information, please do not used for commercial purposes!

130 pages of user manual, very detailed, easy to understand, very suitable for beginners and customer second development platform!

packing list

1. Easy2812 development board
2. 5V dc voltage stabilizer
3. Serial cable 9 pin